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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,573	03/29/2004	William Frank Micka	TUC920030044US1	2098
46917	7590	06/29/2006	EXAMINER	
KONRAD RAYNES & VICTOR, LLP.			VERBRUGGE, KEVIN	
ATTN: IBM37			ART UNIT	
315 SOUTH BEVERLY DRIVE, SUITE 210			PAPER NUMBER	
BEVERLY HILLS, CA 90212			2189	

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/811,573	Applicant(s) MICKA ET AL.	
	Examiner Kevin Verbrugge	Art Unit 2189	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is in response to the application filed 3/29/04. Claims 1-18 are pending.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the claims of copending Application No. 10/464024. Although the conflicting claims are not identical, they are not patentably distinct from each other because the differences amount to mere rewordings of the same invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 12, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6, 12, and 18 contain the trademark/trade name FlashCopy. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe

the command used to perform a copy operation and, accordingly, the identification/description is indefinite. Evidence that FlashCopy is a trademark is found on the last page of the specification.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 13-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to an article of manufacture which the specification defines as including "a transmission medium, such as a network transmission line, wireless transmission media signals propagating through space, radio waves, infrared signals, etc." and "any information bearing medium known in the art" (see page 11, lines 18-26). Since these classifications of an article of manufacture do not fall in any of the four categories of patentable invention listed in 35 USC 101, the claims are unpatentable.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

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351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6-10, 12-16, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2005/0071372 to Bartfai et al.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1, 7, and 13, Bartfai shows the claimed system in Fig. 1.

He shows the claimed first storage control unit as primary control storage unit 102.

He shows the claimed second storage control unit as secondary storage control unit 104.

He shows the claimed link as data interface channels 108.

Bartfai's device operates as claimed, with the secondary site storage volumes 118 being peer-to-peer copies of the primary site storage volumes 116 and generating a copy of the first and second set of volumes in the flashcopy secondary site storage target volumes 120.

Regarding claims 2, 3, 8, 9, 14, and 15, Bartfai's device performs a FlashCopy operation which is a point-in-time copy operation as claimed.

Regarding claims 4, 10, and 16, Bartfai's secondary storage control unit does not have an active link other than the one to the primary storage control unit as claimed.

Regarding claims 6, 12, and 18, Bartfai's device uses the FlashCopy command as claimed to make the point-in-time copy on volumes 120.

Claims 1-3 6-9 12-15 18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2003/0158869 to Micka.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1, 7, and 13, Micka shows the claimed system in Fig. 1. He shows the claimed first storage control unit as primary site 101.

He shows the claimed second storage control unit as remote recovery site 103.

He shows the claimed link as communication links 116.

Micka's device operates as claimed, with volume C being a peer-to-peer copy of volume B and generating a flashcopy of the data in volume D.

Regarding claims 2, 3, 8, 9, 14, and 15, Micka's device performs a FlashCopy operation which is a point-in-time copy operation as claimed.

Regarding claims 6, 12, and 18, Micka's device uses the FlashCopy command as claimed to make the point-in-time copy on volume D.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 11, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2005/0071372 to Bartfai et al.

Bartfai teaches that his peer-to-peer copying between volumes 116 and volumes 118 is asynchronous. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make it synchronous as an obvious matter of design choice. Bartfai teaches the advantage of asynchronous is that the effect of

long distance on the host response time is eliminated (paragraph 23, last sentence). He teaches that the disadvantage of asynchronous is that it does not continuously maintain a consistent copy of data at the secondary site, therefore risking data loss (paragraph 8, last sentence). Synchronous copying, by contrast, has a longer response time but maintains a consistent copy of all data all the time. These pros and cons are weighed by the designer in making the choice of whether to use synchronous or asynchronous copying.

Claims 4, 5, 10, 11, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2003/0158869 to Micka.

Regarding claims 4, 10, and 16, Micka's remote recovery site 103 is shown connected to recovery host 118. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to remove the recovery host from Micka's system as an obvious matter of design choice if failure of application host 102 was not a concern. In other words, if the designer has implemented sufficient redundancy in application host 102 or is content with the chance for failure due to application host 102 failing, then recovery host 118 becomes unnecessary and can be removed to save cost and complexity. In Micka's device, the recovery host is only used once the application host fails, so the system functions without it until application host

102 fails. Therefore, in recovery situations where primary site 101 is destroyed, the data is still secure at the remote recovery site 103 and the designer's choice is whether to include a recovery host at all times to speed access to the data upon a primary site 101 failure or to not include a recovery host until the failure of site 101, saving cost and complexity for a failure that may never occur with the tradeoff being greater delay in access if a failure does occur since it will take some time to connect a recovery host.

Regarding claims 5, 11, and 17, Micka teaches that his peer-to-peer copying between volumes B and C is asynchronous. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make it synchronous as an obvious matter of design choice. The advantage of asynchronous is that the effect of long distance on the host response time is eliminated. The disadvantage of asynchronous is that it does not continuously maintain a consistent copy of data at the secondary site, therefore risking data loss. Synchronous copying, by contrast, has a longer response time but maintains a consistent copy of all data all the time. See Micka, paragraph 6 and following, for a discussion of synchronous vs. asynchronous. These pros and cons are weighed by the designer in making the choice of whether to use synchronous or asynchronous copying.

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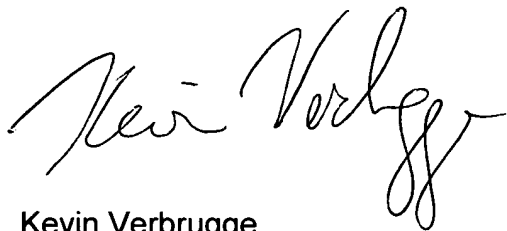
Conclusion

The method claims are grouped and rejected with the apparatus claims because the steps of the method are met by the disclosure of the apparatus and methods of the reference(s) as discussed above.

Any inquiry concerning this Office action should be directed to the Examiner by phone at (571) 272-4214.

Any response to this Office action should be labeled appropriately (including serial number, Art Unit 2189, and type of response) and mailed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, hand-carried or delivered to the Customer Service Window at the Randolph Building, 401 Dulany Street, Alexandria, VA 22313, or faxed to (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

A handwritten signature in black ink, appearing to read "Kevin Verbrugge", with a stylized, cursive script.

Kevin Verbrugge
Primary Examiner
Art Unit 2189